

WHAT IS CLAIMED IS:

1. A method of transferring a substrate, using an atmospheric loader comprising:

(1) a single atmospheric transferring device for carrying in and carrying out, one by one, substrates between a cassette which receives plural substrates and two lock chambers; and

(2) a cassette table for mounting in air said cassette, wherein the method comprising the steps of:

using said single atmospheric transferring device, taking out, one by one, said substrate from said cassette which is mounted on said cassette table, and carrying in, one by one, said substrate to one of said two lock chambers; and

using said single atmospheric transferring device, taking out, one by one, said substrate from one of said two load chambers, and carrying in said substrate to said cassette.

2. A method of transferring a substrate according to claim 1, wherein a substrate which is to be subjected to processing is carried into one of said two lock chambers, and a substrate which has been subjected to processing is carried to said cassette.

3. A method of transferring a substrate according to claim 2, wherein said single atmospheric transferring device

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is operated substantially at a front face of said two lock chambers.

4. A method of transferring a substrate according to claim 1, wherein said single atmospheric transferring device is operated substantially at a front face of said two lock chambers.

5. A method of transferring a substrate according to claim 4, wherein said two lock chambers comprise a load lock chamber and an unload lock chamber.

6. A method of transferring a substrate according to claim 3, wherein said two lock chambers comprise a load lock chamber and an unload lock chamber.

7. A method of transferring a substrate according to claim 2, wherein said two lock chambers comprise a load lock chamber and an unload lock chamber.

8. A method of transferring a substrate according to claim 1, wherein said two lock chambers comprise a load lock chamber and an unload lock chamber.

9. A substrate transferring apparatus comprising:
an atmospheric loader having (1) a single atmospheric transferring device for carrying in and carrying out, one by one, substrates between (a) a cassette which

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13. A substrate transferring apparatus according to claim 12, wherein said two lock chambers comprise a load lock chamber for carrying in said substrate which is to be subjected to processing and an unload lock chamber for carrying out said substrate which has been subjected to

processing.

14. A substrate transferring apparatus according to claim 11, wherein said two lock chambers comprise a load lock chamber for carrying in said substrate which is to be subjected to processing and an unload lock chamber for carrying out said substrate which has been subjected to processing.

15. A substrate transferring apparatus according to claim 10, wherein said two lock chambers comprise a load lock chamber for carrying in said substrate which is to be subjected to processing and an unload lock chamber for carrying out said substrate which has been subjected to processing.

16. A substrate transferring apparatus according to claim 9, wherein said two lock chambers comprise a load lock chamber for carrying in said substrate which is to be subjected to processing and an unload lock chamber for carrying out said substrate which has been subjected to processing.

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17. A substrate transferring apparatus comprising:
an atmospheric loader having (1) a single atmospheric transferring device for carrying in and carrying out, one by one, substrates between (a) a cassette which receives plural substrates and (b) two lock chambers, and (2)

a cassette table for mounting in air said cassette,

wherein said single atmospheric transferring device has a mechanism for carrying in and carrying out, one by one, a substrate between said cassette which is mounted on said cassette table and said atmospheric loader, and a mechanism for carrying in and carrying out, one by one, said substrate between said atmospheric loader and said two lock chambers.

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